

## Osteoporosis: The Silent Disease

Andrea Klemm, Program Coordinator  
ISDH Office of Women's Health

According to the National Osteoporosis Foundation, osteoporosis is a disease that affects 44 million Americans, 80% of whom are women. This disease is characterized by a thinning of bones and bone fragility that may lead to fractures of the spine, hip and wrist. Osteoporosis is often referred to as the "silent disease" because no symptoms occur to indicate bone loss until there is a fracture.



Bone formation takes place from birth to the mid-30s. The bulk of which occurs during the years of adolescence. After the mid-30s, bone formation slows down and can cause bones to become less dense. Once a woman reaches menopause, her risk for bone loss increases, and bone mass can decrease at a rapid rate. The insufficient levels of estrogen in a woman's body during menopause can be, among other things, directly correlated to the decrease of bone mass.

Although osteoporosis is often thought of as a disease of older people, it can occur at any age. Many factors can attribute to bone loss and osteoporosis, some of which include a diet low in calcium, physical inactivity, smoking, being female and family history of osteoporosis or fracture after age 45.

As a major public health threat, this disease costs upwards of \$14 billion a year. Its costs and incidence are rising. Over one million fractures occur each year in the United States. The rate of hip fracture is two to three times higher in women than men. A woman's risk of hip fracture is equal to her *combined* risk for breast, uterine and ovarian cancer.

Prevention is the key to toppling osteoporosis and its debilitating effects. It is recommended that women under the age of 19 consume 1,300 mg of calcium with vitamin D and women aged 19-50 get 1,000mg of calcium and vitamin D per day. That is the equivalent of at least 3-5 servings of calcium rich foods, such as dairy products. Women aged 50 and older should have 1200-1500 mg of calcium with vitamin D in their diets per day. It is also important that women participate in weight-bearing exercise. It has been shown to help maintain strong bones and to encourage bone formation in young people. Physical activity is essential to bone health throughout the life span.

Bone density testing is the most accurate way to determine if any bone loss has occurred or if there is a risk for fracture. There are many forms of bone density testing and screening. The Office of Women's Health (OWH) at the Indiana State Department of Health uses ultrasound technology for screening that is quick, non-invasive and painless. The results from the screening are immediately produced and explained to the participant. During the interpretation, there is an opportunity for the participant to ask questions and receive educational material about osteoporosis. In order for each woman to understand her risk, a risk analysis questionnaire is sent home with her, along with her scores. Women are encouraged to give their scores to their doctors for assessment and to be placed in their medical file.

It is the goal of the *Indiana Osteoporosis Prevention Initiative* to provide bone density screenings and education throughout Indiana.

The Indiana Osteoporosis Prevention Initiative was established in 1997 by House Enrolled Act 1961 and is administered by the OWH. The program's initial objectives included prevention and treatment education for women throughout the state of Indiana. The Indiana Osteoporosis Prevention Initiative maintains four Sahara Bone Densitometers for screening women for bone density loss. This is an immediate, non-invasive test for identifying the risk for bone loss and has allowed the initiative to expand its objectives to include screenings.

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